

REMARKS

The following is intended as a full and complete response to the Office Action mailed on November 20, 2003. Claims 1-56 were examined. The Examiner rejected claims 1-3, 14-19, 28, 35-40 and 49-51 under 35 U.S.C. § 102(b) as anticipated by Maxham (U.S. Pat No. 5,374,973). The Examiner rejected claims 4, 29, and 41 under 35 U.S.C. § 103(a) as being unpatentable over Maxham in view of Conradi (U.S. Pat No. 6,490,077). The Examiner rejected claims 14-24 and 52-56 under 35 U.S.C. § 103(a) as being unpatentable over Maxham in view of Emori (Emroi, Y.; Namiki, S.; 100nm Bandwidth Flat Gain Raman Amplifiers Pumped and Gained-Equalized by 12-Wavelength-Channel WDM High Power Laser Diodes 21-26 Feb. 1999, Optical Fiber Communication Conference, 1999, pp. PD 19/1-PD 19/3). Finally, the Examiner objected to claims 5-13, 30-34, and 42-48 as depending from a rejected base claim, but indicated that these claims would be allowed if rewritten in independent form.

Rejections under 35 U.S.C. § 102(b)

In paragraph 2 of the Office Action, the Examiner rejected claims 1-3, 14-19, 28, 35-40 and 49-51 under 35 U.S.C. § 102(b) as anticipated by Maxham. Applicant respectfully traverses the rejection. Maxham does not disclose a system, comprising a “pump receiving both a DC electrical input and an AC electrical input, and providing an optical pump power to the optical fiber having both a DC optical power component and an AC optical power component” as recited in claims 1, 28, 29, and 37, or a method, comprising “generating an optical pump power with at least one optical pump for transmission along the optical fiber, by providing the optical pump with a DC electrical input and an AC electrical input, the optical pump power having a DC power component and an AC power component” as recited in claim 38. Maxham never specifies whether I_C and I_M have AC components, DC components, or both components. Further, as is

customary in the electrical arts, electrical signals are interpreted to have only a DC component, unless those signals are specified to have an AC component. Thus, not only is Maxham completely silent on the issue of the type of current used for I_C and I_M , but it is also not inherent that Maxham teaches that I_C and I_M have both AC and DC components. Therefore, claims 1, 28, 29, 37, and 38 are patentable over Maxham. Claims 35 and 36 are also patentable over Maxham since they depend from claim 29. Claims 39, 40, and 49-51 are also patentable over Maxham since they depend from claim 38.

Rejections under 35 U.S.C. § 103(a)

In paragraph 3 of the Office Action, the Examiner rejected claims 4, 29, and 41 under 35 U.S.C. § 103(a) as being unpatentable over Maxham in view of Conradi. Applicant respectfully traverses the rejection. Conradi has a U.S. filing date of November 20, 2000. The Application claims priority to U.S. Provisional App. No. 60/230,019, filed September 5, 2000. (See Application, page 1.) Therefore, Conradi is not a proper reference pursuant to 35 USC § 102. Withdrawal of the rejection is respectfully requested.

In paragraph 4 of the Office Action, the Examiner rejected claims 14-24 and 52-56 under 35 U.S.C. § 103(a) as being unpatentable over Maxham in view of Emori. Applicant respectfully traverses the rejection. As noted above, Maxham does not teach, suggest, or disclose providing both AC and DC components in either the method or apparatus. Likewise, Emori does not teach, suggest, or disclose providing both AC and DC components in the method or apparatus either. Therefore, claims 1 and 38 are patentable over Maxham in view of Emori. Claims 14-24 and 52-56 are also patentable over Maxham in view of Emori since they depend from claims 1 and 38, respectively.

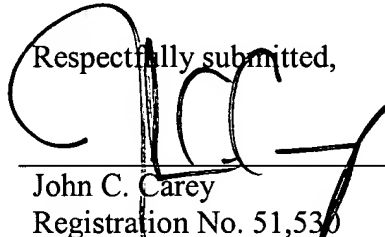
Claim Objections

The Examiner objected to claims 5-13, 30-34, and 42-48 as depending from a rejected base claim, but indicated that these claims would be allowed if rewritten in independent form. Applicant believes that the objection is moot since the rejections to the base claims have been traversed. Withdrawal of the objection is respectfully requested.

CONCLUSION

Based on the above remarks, Applicant believes that he has overcome all of the rejections set forth in the Office Action mailed November 20, 2003, and that the pending claims are in condition for allowance. If the Examiner has any questions, please contact the Applicant's undersigned representative at the number provided below.

Respectfully submitted,



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